NOTES FOR GEORGIA TECH PRESIDENT WAYNE CLOUGH
"How Research Universities are Fueling Economic Growth in Atlanta"
Commerce Club panel, October 26, 2006

- Georgia Tech educates extremely bright students in technological fields that are key to our economy
  - Largest engineering program in the nation; most grads
  - Top 5 engineering program with all disciplines ranked in the top 10
  - Growing strength and national recognition for sciences, management
  - Architecture grads have shaped Atlanta's skyline

- GT a research leader
  - About $425 million in annual research expenditures; most of which comes in from outside state
  - Interdisciplinary research thrusts with potential for commercial applications: energy, health care systems, high-performance computing, robotics
  - No.1 in the nation in logistics for 16 consecutive years; cluster study revealed Atlanta a center for logistics; new Metro Chamber initiative in logistics
  - Pioneering new interdisciplinary fields like systems biology, biomimetics (study of nature's engineering solutions)
  - GT's strengths in engineering, computing and the sciences becoming increasingly important to medical advances – increasing opportunities for collaboration with Emory to the benefit of Atlanta
  - Leader in nanomedicine, together with Emory; 3 national centers of excellence in nanomedicine:
    - Cardiovascular system
    - Cancer
    - DNA and RNA repair
  - Among nation's top 10 universities in patents; #3 in Georgia behind GE Energy and BellSouth

- Creating start up companies at an increasing pace: 76 in past 10 years; 50 in past 5 years

- Milken Institute recently recognized for commercialization in biotechnology:
  - No. 4 in start-up companies
  - No. 8 in patents filed
  - No. 11 in technology transfer

- VentureLab
  - Assesses commercial potential of discoveries and new technologies from GT research labs; develops commercialization plans
  - Matches faculty with "Fellows" – experienced entrepreneurs who mentor them through the commercialization process
  - Provides seed funding for prototype product or proof-of-concept needed to attract venture capital.

- Since created in 2001: Evaluated 300 technologies; 11 start-up companies have emerged from the process.
- Go from VentureLab into ATDC incubation
- "Clean-tech" start-ups that use technology to make things happen in an environmentally sustainable way
  - 5 new companies in VentureLab
  - 4 more projects with commercial potential in the pipeline

- ATDC
  - Created in 1980, nation's first university-based incubator
  - Has graduated more than 100 companies
  - 75% of graduates from past 10 years still in business or sold to another company that is still in business = very high success rate
  - Presently 37 companies in incubation
  - 3 Atlanta locations: Tech Square, Ford ES&T, EmTech Bio

- Technology Enterprise Park
  - North Avenue, just west of Coca-Cola
  - Caters to 2nd-3rd stage companies that need wet-lab facilities
  - First building topped out; second to go into construction soon

<u>Examples:</u>

- CardioMEMS: tiny sensors that are placed in body; activated by radiowaves; take readings and send results by radiowaves.
  - Based on technology developed at GT by EE Professor Mark Allen who is expert in MEMS – micro-electro-mechanical systems – for use in unmanned aircraft.
  - Critical technology being patented: how to send radiowaves through layers of fat (most patients are overweight); much more difficult than through air. Patent opens up whole new area of product development, rather than just one particular product that could be quickly surpassed by a competitor.

- Jacket Micro Devices
  - Produces highly integrated radio frequency modules that reduce the size and improve the performance of wireless communication devices, enable more devices to add wireless capacity
  - "System on a package" that incorporates all of the critical components for complex wireless devices into one small system, allowing wireless capacity to be added to devices like PDAs, music players, portable game players, etc. without the need for skilled engineers with a knowledge of radio frequency design.
- Agrios
  - Automated capture, identification, and archiving of damage information on fleet and personal vehicles to help with issues like remarketing, insurance fraud and error reduction, damage subrogation, fleet driver risk control.
  - Attracted attention of vehicle leasing, remarketing companies, companies with vehicle fleets, vehicle rental companies.

- Presently in testing here in Atlanta while raising capital for larger scale national roll-out

- Think2020
  - software structural framework that helps companies be more productive in their enterprise application software work
  - Only 16% of enterprise application initiatives have been completed on time, on budget, and performed as expected. Reason: code required by custom applications has gotten too complex and convoluted. TruCare software, developed by Think2020, provides a framework for application development that manages the coding for custom applications, reducing the amount of code required by up to 95%. Makes custom applications faster to build, smaller, more flexible and adaptable.